

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter, on the Commission's own motion, )  
of load profiling provisions of the retail access )  
service tariff of **THE DETROIT EDISON** )  
**COMPANY.** )  
\_\_\_\_\_ )

Case No. U-13385

At the May 2, 2003 meeting of the Michigan Public Service Commission in Lansing,  
Michigan.

PRESENT: Hon. Laura Chappelle, Chairman  
Hon. David A. Svanda, Commissioner  
Hon. Robert B. Nelson, Commissioner

**OPINION AND ORDER**

History of Proceedings

On April 26, 2002, the Commission commenced this proceeding to address load profiling issues related to The Detroit Edison Company's (Detroit Edison) tariff for its retail open access program, sometimes referred to as Detroit Edison's retail access service tariff (RAST). In so doing, the Commission directed Detroit Edison to file, by June 17, 2002, a proposal in the form of testimony and exhibits addressing certain specific issues. Interested persons were given until June 24, 2002 to intervene in the case. A prehearing conference was scheduled for July 9, 2002.

Petitions to intervene were received from the Association of Businesses Advocating Tariff Equity (ABATE), Energy Michigan, the National Energy Marketers Association (NEMA), Energy America, LLC, and the Michigan Electric and Gas Association (MEGA).

On July 9, 2002, Administrative Law Judge Barbara A. Stump (ALJ) presided over the prehearing conference, which was attended by Detroit Edison, ABATE, Energy America, and MEGA. The Commission Staff (Staff) also participated in the proceedings. The ALJ granted the petitions for intervention filed by ABATE, Energy America, and MEGA. She postponed any decision on the interventions filed by Energy Michigan and NEMA because those parties failed to appear for the prehearing conference. She also established a schedule for the remainder of the case. Subsequently, upon stipulation of the parties, the ALJ granted the petitions to intervene filed by Energy Michigan and NEMA.

The ALJ conducted an evidentiary hearing on October 22, 2002 that was attended by Detroit Edison, Energy America, and the Staff. Detroit Edison presented the testimony of three witnesses and three exhibits after indicating an agreement had been reached by the parties to the receipt of such evidence without cross-examination.

On November 19, 2002, Detroit Edison, Energy Michigan, and the Staff filed briefs. On December 19, 2002, Detroit Edison and Energy Michigan filed reply briefs.

On January 2, 2003, the ALJ issued her Proposal for Decision (PFD). On January 14, 2003, Energy Michigan filed exceptions to the PFD. On January 28, 2003, Detroit Edison filed its reply to exceptions.

### Background Information

The issue of load profiling, which is a method of estimating the monthly demand and load shape for a class of customers (generally residential and small commercial customers) whose electrical usage is measured through the use of energy-only meters rather than interval demand meters, arose and was discussed in the context of the Commission's December 20, 2001 order in Case No. U-12489. As noted in that order, load profiling is accomplished by installing interval

demand meters for a statistically significant sample of customers. Data supplied by those sample meters is used to compute a proxy demand per kilowatt-hour (kWh) of energy use, which is then applied as a proxy to all members of the relevant customer classes. In this way, the actual demand from the sample can be used to estimate the amount of power that should be or should have been delivered--on an hourly basis--to the incumbent utility by a marketer or an alternative electric supplier (AES). In addition, the load profile is used to determine the demand-based system use charge to be paid by each retail open access customer taking service through use of an energy-only meter.

Detroit Edison initially proposed in Case No. U-12489 to include a rather basic load profiling methodology in its RAST that would develop proxy curves for application to all residential and commercial customers that lacked interval demand meters. Detroit Edison intended to profile customer usage only once each billing cycle. Detroit Edison also indicated that it would use only three classifications of energy-metered customers. Additionally, Detroit Edison proposed expansion of the range of customers covered by load profiling from those with less than 20 kilowatts (kW) of load to those with a demand level of less than 300 kW.

Energy Michigan urged rejection of Detroit Edison's Case No. U-12489 proposal. According to Energy Michigan, the biggest problem with Detroit Edison's proposal was one of timing. Specifically, Energy Michigan noted that Detroit Edison's plan would not make actual load data available to an AES or marketer until long after actual energy consumption by its customers had occurred. This process is generally referred to as "load following" as opposed to "load leading."

With a load following process, the utility presents suppliers with an hourly schedule based on the estimated load profile of the supplier's customers. The supplier then schedules and makes deliveries based on its best forecast of actual use during the billing period. Following the billing

period, any discrepancies between the customers' actual use and the delivery schedule are reconciled according to the tariff provisions for energy imbalances. If the schedule and delivery of power did not closely match the customers' actual use, the suppliers would be responsible for energy imbalance charges.

With a load leading process, if the supplier meets the schedule provided by the utility, then no energy imbalance charges are assessed if actual customers' energy use varies from the schedule. The suppliers or the utility would make up any differences between scheduled and delivered energy by transactions at market prices, without any penalty being assessed for hourly imbalances outside of the variances allowed in the retail open access tariff.

According to Energy Michigan, adoption of Detroit Edison's Case No. U-12489 proposal could perpetuate a system under which an AES or marketer must estimate the amount of power that will be used by its customers so far in advance that large energy imbalances (as well as the penalties arising from them) would be all but guaranteed. Energy Michigan therefore suggested replacing Detroit Edison's load following proposal with a comprehensive load leading program. Under this proposal, the utility would be required to (1) develop hour-by-hour load profiles for each of its customer classes, (2) provide a prospective hourly load profile for each AES, and (3) include, as part of those profiles, all transmission and distribution line losses. Although Detroit Edison would be allowed to adjust the prospective load profiles, adjustments would have to be announced by 1:00 p.m. on the day prior to their effective date.

The Staff also found Detroit Edison's Case No. U-12489 proposal to be lacking. However, it did not demand the elimination of the utility's load following system. Instead, it recommended ordering the utility to offer an optional load profile management service. This proposal, which was based on a similar optional service program that Consumers Energy Company (Consumers)

offers to its retail open access customers, included pricing provisions identical to those suggested in Case No. U-12488 (Consumers' open access tariff proceeding). Namely, it would provide load leading profiles (which, if adhered to by a marketer or AES, would protect that entity from the imposition of imbalance penalties) in return for a charge of \$0.0046 per kWh for all energy used.

In its December 20, 2001 order in Case No. U-12489, the Commission found that establishing an optional service under which customers with energy-only meters could obtain load-leading profiles would make retail open access more attractive to residential and small commercial customers, while ensuring a more accurate match between the power provided to Detroit Edison by AESs and marketers, on the one hand, and that used by those suppliers' customers, on the other. Moreover, the Commission found that the \$0.0046 per kWh charge suggested by the Staff, which matched the price that Consumers intended to charge for a nearly identical service, constituted a reasonable proxy for use until a cost-based price could be established. Finally, the Commission agreed that no energy imbalance penalties should be imposed when power is scheduled and delivered in accordance with the load leading profiles provided by the utility.

The Commission revisited this issue in its April 26, 2002 rehearing order in Case No. U-12489 in response to Detroit Edison's assertion that the December 20, 2001 order must be clarified to ensure that customers with loads less than 300 kW should receive service without an interval demand meter and those above 300 kW should receive service with an interval demand meter. According to Detroit Edison, such clarification would allow it to avoid the unnecessary installation of thousands of interval demand meters. Detroit Edison also contended that the Commission's December 20, 2001 decision to include a load-profile management service in its RAST justified establishing a firm 300 kW threshold for the installation of interval demand meters.

ABATE responded by noting that there was no record support for the arguments offered by

Detroit Edison concerning the establishment of a demand meter installation threshold. As a result, ABATE recommended ignoring all of the factual allegations set forth by the utility regarding this issue.

Energy Michigan agreed with ABATE and recommended rejection of Detroit Edison's request to eliminate the availability of interval demand meters for customers having loads below 300 kW. Moreover, it contended that granting Detroit Edison's request could result in excessive distribution charges for many high load factor customers, which might discourage participation in the open access program.

In its April 26, 2002 order in Case No. U-12489, the Commission found insufficient justification for granting Detroit Edison's request at that time. In so doing, the Commission concluded that there would be some value to both the utility and its ratepayers in allowing smaller customers to participate in the open access program without requiring the installation of interval demand meters. Indeed, the Commission noted that this fact was the basis for several of the rulings contained in the December 20, 2001 order, including the Commission's decision to approve the optional load profile management service. However, the Commission was persuaded that many issues remained unresolved. Therefore, the Commission concluded that, instead of approving Detroit Edison's request to immediately establish a meter threshold, it should commence this proceeding to address load profiling issues, including, but not limited to, such things as (1) the most appropriate level for any demand meter installation threshold, (2) the number of separate customer profiles that should be developed, (3) the number of sample meters that should be used to compute the proxy demand per kWh for each customer profile, and (4) the price, if any, to be charged by the utility for providing its customer profiling service.

### Detroit Edison's proposal

William R. Cloutier, Jr., Manager of Data Acquisition for Detroit Edison's Electric Choice program, addressed two of the issues raised by the Commission in its April 26, 2002 order. According to Mr. Cloutier, his company's load profile management service will provide marketers with forecasts of the hourly energy requirements for all energy-metered customers. He testified that marketers should be allowed to subscribe to the service on a voluntary basis, but that a subscription should have a minimum term of 12 months. Thereafter, the service could be terminated on 30-day's notice. Mr. Cloutier further testified that the service would be useful because no actual measurement or history of hourly energy consumption for energy-metered customers exists. He believed that these forecasts would enable a marketer to schedule hourly energy deliveries into Detroit Edison's distribution system to match its customers' aggregated usage and thereby avoid imbalance penalties.

Mr. Cloutier explained that forecasts would be developed through use of a load forecasting methodology. According to Mr. Cloutier, Detroit Edison's current load profiling methodology, referred to as "dynamic profiling," determines the usage patterns of customer class profiles by studying actual coincident sample data from representative groups. The new load forecasting methodology envisioned by Detroit Edison would predict customer usage patterns by estimating and modeling class profiles without the use of dynamic profiling. He stated that through the use of such forecasting techniques, Detroit Edison would develop a class profile to represent the hourly energy usage pattern for each customer in that class, with anticipated energy usage for each customer being calculated and distributed, hour-by-hour, according to the pattern established by the class profile.

Mr. Cloutier testified that Detroit Edison's load profile management service would focus on two basic customer classes. He stated that a customer's energy usage for an entire billing period would be distributed in accordance with a pattern, known as a proxy curve, that is typical of that customer's class. According to him, one proxy curve will be used for residential customers and the other will represent all commercial customers served by single-phase service. Based on these two sources, each marketer will be provided with a forecast of the aggregated energy needs of all of its energy-metered customers.

Regarding the possibility that the marketers' customers will likely use more or less energy than forecasted, Mr. Cloutier testified that the load profile management service proposal would include a true-up process to account for the difference between the energy that was originally forecast for a specific billing period for each customer and the energy that the customer actually used during that period, as determined by that customer's energy meter. According to him, the actual energy would be re-distributed, hour by hour, over that billing period using the class profile. The hourly differences would be aggregated with the true-up amounts for all the other customers, and the hourly differences would be credited or debited without penalties.

Mr. Cloutier recommended that the sample should consist of 310 residential customer meters and 250 commercial single-phase customer meters. Finally, he sponsored Exhibit A-1, which sets forth the cost components necessary to build, implement, and administer the proposal.

William J. Newbold, Jr., a Strategy Project Director for Detroit Edison's Electric Choice program, testified that all residential customers and all single-phase secondary non-residential customers should be billed on a demand derived from their kilowatt-hour usage through the use of a demand conversion table. All three-phase non-residential customers would be required to install interval demand meters. According to Mr. Newbold, it is appropriate for the threshold beyond

which interval demand meters should be required for non-residential customers to be the single-phase/three-phase dividing point because it is consistent with Detroit Edison's current practices. He also explained that the single-phase/three-phase point of demarcation is a known and unchanging value that produces a result similar to Consumers' 20 kW threshold, and avoids price changes during the Act 141 price freeze.

Timothy A. Bloch, a Principal Analyst in Detroit Edison's Department of Regulatory Policy and Operations, developed the company's proposed price for the optional load profile management service. Mr. Bloch sponsored Exhibits A-2 and A-3, which are the estimated sales under the service and the price calculation for the service, respectively. He calculated that the service would cost \$0.0034 per kWh. Mr. Bloch's calculations were based on his estimate that only 20% of single-phase choice sales will be served pursuant to the service. He attributed the low usage level to the need of marketers to gain expertise in developing their own daily load forecasts. According to Mr. Bloch, as marketers develop this expertise, the need for the service will diminish. Furthermore, he stated that the experience of other utilities offering similar services was that marketers had limited interest in such service.

#### Proposal for Decision

Noting that Detroit Edison was the only party to present evidence in this proceeding, the ALJ found that its proposal was supported by credible testimony and exhibits, which were not refuted by any other party. In so doing, the ALJ chose to afford Energy Michigan's arguments little, if any, evidentiary weight. Specifically, the ALJ found that Detroit Edison had proven that its load profiling system, which is based on only two customer classes, would produce accurate results. In so doing, she quoted Mr. Cloutier's testimony that Detroit Edison's Load Research Department had determined that the sample size proposed by Detroit Edison would achieve an accuracy of

± 10% at the 90% confidence level at the time of monthly class peak and an accuracy of ± 10% at the 80% confidence level for all on-peak hours. Next, the ALJ found that Mr. Cloutier's testimony supported Detroit Edison's proposed charge for the load profiling management service. In so doing, the ALJ noted that Energy Michigan's objections to Detroit Edison's proposal were not supported by any record evidence.

### Discussion

In its exceptions, Energy Michigan objects to the ALJ's observation that its arguments were entitled to little, if any, weight. According to Energy Michigan, because Detroit Edison presented such an illogical and obviously ineffective proposal, the introduction of contrary evidence was unnecessary. Moreover, Energy Michigan asserts that its failure to cross-examine Detroit Edison's witnesses should not have been considered by the ALJ as justification for reducing the weight to be afforded to its arguments.

Detroit Edison responds by arguing that the ALJ properly considered Energy Michigan's failure to provide contrary evidence or to cross-examine the witnesses in determining the weight to be afforded Energy Michigan's positions. As an example, Detroit Edison maintains that Energy Michigan's statement that nobody will utilize the load profiling service is simply an opinion that is unsupported by any record evidence. According to Detroit Edison, such unsupported contentions made by Energy Michigan in its brief are not equivalent to real evidence. Detroit Edison insists that Energy Michigan could have provided such information, but failed to do so.

The Commission will not fault the ALJ for observing that Energy Michigan failed to provide contrary evidence. The Commission's April 26, 2002 order clearly informed all interested persons that this proceeding was initiated to provide a forum for determination of important load profiling issues. This proceeding was conducted as a contested case under the Administrative Procedures

Act of 1969 (APA), 1969 PA 306, as amended, MCL 24.201 et seq. Section 85 of the APA, MCL 24.285, requires the Commission's final decision to be based exclusively on record evidence and matters officially noticed.<sup>1</sup> Although Energy Michigan was granted intervention in this proceeding, it failed to present any evidence to support its positions. Therefore, pursuant to MCL 24.285, its unsupported positions are not entitled to any evidentiary weight.

Next, Energy Michigan maintains that the ALJ improperly concluded that Detroit Edison's proposal was both accurate and economically attractive. Energy Michigan cites testimony presented by Mr. Cloutier that Detroit Edison's load profiling service would be based on only two profiles. In so doing, Energy Michigan maintains that the testimony relied on by the ALJ as her basis for finding that Detroit Edison's proposal will produce accurate results pertains to the ability of sample meters to predict load of an entire class, not the load of individual subsets of the class. It is Energy Michigan's position that any system that uses only one residential profile and one commercial profile is obviously flawed because a single profile system does not differentiate between customers with radically different load patterns. Energy Michigan also argues that a single profile system applicable to all commercial customers will benefit some customers at the same time that it punishes others.

Detroit Edison responds that the ALJ's determination is supported by evidence and un rebutted, and, therefore, should be adopted by the Commission. According to Detroit Edison, Mr. Cloutier testified that Detroit Edison's current load profiling methodology should be retained "for efficiency and consistency." 2 Tr. 24. In addition, Detroit Edison insisted that Mr. Cloutier's

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<sup>1</sup>Section 77 of the APA, MCL 24.277, describes the procedure for an agency to take official notice of a judicially cognizable fact or of a general, technical, or scientific fact within the Commission's specialized knowledge. MCL 24.277 was not utilized in this proceeding.

testimony regarding the accuracy of using one residential profile and one commercial profile is consistent with the industry standard level of accuracy.

The Commission concludes that the ALJ's findings are supported by the record and should be adopted. In reaching this determination, the Commission is not persuaded by Energy Michigan's contention that Detroit Edison's proposal is so fundamentally flawed that it may be rejected solely on the basis of Energy Michigan's arguments to the contrary. This is particularly true where the order that commenced this proceeding explicitly indicated that the Commission was interested in the issue of the number of separate customer profiles that should be developed. Although Energy Michigan may argue that one residential profile and one commercial profile are not sufficient for its purposes, such an argument does little to provide the Commission with a basis for determining how many separate customer profiles should be used, which was one of the key purposes of this proceeding.

In its final exception, Energy Michigan argues that the ALJ erred in rejecting its contention that the cost of the profiling program was unreasonable. Citing Mr. Cloutier's testimony, Energy Michigan asserts that Detroit Edison failed to demonstrate that it would incur any significant new investment in metering facilities for its proposed profiling service. Additionally, Energy Michigan insists that Mr. Bloch's assumption that only 20% of the single phase customers would participate in the program amounts to a graphic demonstration that Detroit Edison's profiling service will not be economically attractive to its target market. Energy Michigan would have the Commission send Detroit Edison back to the drawing board to craft another, more acceptable, proposal.

Detroit Edison states that the record simply does not support Energy Michigan's contention that the proposed load profiling costs are unreasonable. Additionally, Detroit Edison maintains that there is no support for a conclusion that the rate designed by Mr. Bloch is imprudent or

unreasonable. Indeed, Detroit Edison stresses that its proposed rate for its optional load profiling service is substantially lower than the proxy price of \$0.0046 per kWh approved by the December 20, 2001 order in Case No. U-12489.

The Commission finds that Energy Michigan's exception should be rejected. The calculation of the rate for the proposed service, which appears on Exhibits A-1, A-2, and A-3, is straight-forward and supported by the testimony of Detroit Edison's witnesses. Moreover, the proposed service is optional. Finally, if Energy Michigan is unsatisfied with the reasonableness of the rate for Detroit Edison's load profile management service, it may raise that issue in the company's next rate case.

The Commission FINDS that:

a. Jurisdiction is pursuant to 1909 PA 106, as amended, MCL 460.551 et seq.; 1919 PA 419, as amended, MCL 460.51 et seq.; 1939 PA 3, as amended, MCL 460.1 et seq.; 1969 PA 306, as amended, MCL 24.201 et seq.; and the Commission's Rules of Practice and Procedure, as amended, 1992 AACS, R 460.17101 et seq.

b. Detroit Edison's proposal regarding the price, terms, and conditions under which it will offer its load profile management service is reasonable and in the public interest, and should be approved.

THEREFORE IT IS ORDERED that:

A. The Detroit Edison Company's proposal regarding the price, terms, and conditions under which it will offer its load profile management service is approved.

B. Within 30 days, The Detroit Edison Company shall file tariff sheets reflecting the price, terms, and conditions under which it will offer its load profile management service approved by this order.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so in the appropriate court within 30 days after issuance and notice of this order, pursuant to MCL 462.26.

MICHIGAN PUBLIC SERVICE COMMISSION

/s/ Laura Chappelle  
Chairman

( S E A L )

/s/ David A. Svanda  
Commissioner

/s/ Robert B. Nelson  
Commissioner

By its action of May 2, 2003.

/s/ Dorothy Wideman  
Its Executive Secretary

B. Within 30 days, The Detroit Edison Company shall file tariff sheets reflecting the price, terms, and conditions under which it will offer its load profile management service approved by this order.

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Suggested Minute:

“Adopt and issue order dated May 2, 2003 approving load profiling provisions for The Detroit Edison Company’s retail access service tariff, as set forth in the order.”